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ARMY COMMUNICATIONS-ELECTRONICS ENGINEERING INSTALLATI--ETC F/G 17/2
LOW LEVEL CONVERSION AND EXPANSION/RELOCATION OF ASSOCIATED EGU--ETC(U)
MAY 79

UNCLASSIFIED

CCC-TED-79-TR-046

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DEPARTMENT OF THE ARMY
U.S. ARMY COMMUNICATIONS-ELECTRONICS
ENGINEERING INSTALLATION AGENCY
FORT HUACHUCA, ARIZONA 85613

LEVEL II
WPE-2893N

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CCC-TED-TSDS

MAY 30 1979

SUBJECT: Test Report, Low Level Conversion and Expansion/Relocation of
Associated Equipment at RAF Croughton AUTODIN Switching Center,
England, Publication No. CCC-TED-79-TR-046

ADA070885

Commander
US Army Communications System Agency
ATTN: CCM-SW-B
Fort Monmouth, NJ 07703

(9) Test Rept.

(11) 34 May
- 79

(14) CCC-TED-79-TR-046

(12) 38 p.

1. REFERENCES:

- Message, USACC, CC-OPS-TS, 011531Z Sep 78, subject: EMR-164 Low Level Conversion, Expansion of Y-Comm Termination and Relocation of Associated Equipment at Croughton ASC.
- Message, USACSA, CCM-SW-B, 252011Z Oct 78, subject: EMR-154/164, Croughton ASC.
- USACEEIA Engineering Installation Plan (EIP) for Low Level Conversion and Expansion/Relocation of Associated Equipment at Croughton ASC, UK, Project No. EIP H85050.
- Message, 2130CG, LGMD, 241500Z Apr 79, subject: Croughton Low Level Conversion EIP H85050.

2. STATEMENT OF THE TASK. This test report records the results of Quality Assurance (QA) evaluations and tests conducted during the Low Level Conversion and Expansion/Relocation of Associated Equipment at the Croughton AUTODIN Switching Center (ASC). QA inspections and tests were conducted during the period of 26 January through 3 April 1979.

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3. BACKGROUND.

a. Defense Communications Agency (DCA) established the requirement for utilizing synchronous CRYPTO equipment for asynchronous transmissions in the AUTODIN which required designated synchronous CRYPTO equipment be modified for the asynchronous application. Under contract DAAG-38-78-C-0034, dated 9 March 1978, Rixon Inc. developed an asynchronous modification kit for the Rixon CRYPTO Ancillary Unit (CAU) SN-394. Engineering Modification Requirement 154 (Revised), CAU Asynchronous Operation, was developed by USACEEIA to provide necessary modifications required by associated line termination buffer and appropriate installation instructions for the Rixon CAU asynchronous modification kit, NSN 5895-01-060-4813.

b. DCA established the requirement for a minimum of 24 additional Defense Special Security Communications System (DSSCS) (Y-Community) terminations at the Croughton ASC. Due to limited capabilities, the Croughton DSSCS secure patch bay required modification before additional subscribers could be terminated. These additional DSSCS terminations could be provided by adding two line jack panels, two taper pin panels, and necessary tie cables to the DSSCS 7150 secure patch bay.

c. The original Patch and Test installation at the Croughton ASC isolated the 7001 and 7002 black dc patch bays from other black patching facilities. Site personnel requested that these patch bays be relocated in line with other black patching equipment. This would improve operator operation and increase the availability of valuable floor space.

d. The Overseas AUTODIN Switching Centers (ASC) were engineered to operate low level with a high/low level conversion capability to accommodate high level terminations. The Air Force Manual Technical Control Improvement Program (MTCIP) converts the Croughton Primary Technical Control to a low level operation with high level conversion capabilities. Due to the MTCIP, a decision was made to remove the high level converter system from the ASC and utilize the low level capabilities of Primary Technical Control.

e. This Agency was tasked by reference 1b to engineer, develop installation plan, and perform on-site QA/Testing necessary to accomplish the above modification requirements. Tobyhanna Army Depot (TOAD) was designated as the responsible installation agency.

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4. RESPONSIBILITIES.

a. US Army Communications Systems Agency (USACSA): As the Project Manager (PM) for Overseas AUTODIN, has management and control of the project. The PM established milestones, provided equipment release, and issued tasking for subject upgrade program.

b. US Army Communications-Electronics Engineering Installation Agency (USACEEIA): Was responsible to prepare the Engineering Installation Plan (EIP), provide the test director, conduct quality assurance evaluations and final acceptance testing of the Croughton low level conversion project, and prepare the final test report.

c. Tobyhanna Army Depot (TOAD): Provide all items identified by the Bill of Materials (BOM) and performs all installation requirements identified by reference 1c.

d. Air Force 2130 Communications Group: Provide appropriate administrative and personnel support for the installation and test requirements identified by reference 1c.

5. SUMMARY OF RESULTS.

a. The quality assurance evaluation and test criteria contained in the Engineering Installation Plan (EIP) No. H85050 were utilized as the QA inspection/evaluation and acceptance test program for the Croughton ASC Low Level Conversion. The Air Force, who is the O&M MILDEP at Croughton, assigned a quality control representative to participate in all QA inspections and tests activities. Material acceptance was accomplished as follows:

(1) Perform receipt inspections of Bill of Material (BOM) during inventory by installation team and perform in-progress/acceptance inspections of modifications during installation, such as visual, mechanical, and electrical inspections during continuity/shakedown testing. A copy of the final QA Inspection Certificate is forwarded as Inclosure 1.

(2) Acceptance tests identified by reference 1c were performed to demonstrate that the low level conversion and expansion/relocation of associated equipment have been correctly installed and are operating properly. Copies of the "Certification of Test" data sheets for installed equipment are at Inclosure 2.

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MAY 30 1979

CCC-TED-TSDS

SUBJECT: Test Report, Low Level Conversion and Expansion/Relocation of Associated Equipment at RAF Croughton AUTODIN Switching Center, England, Publication No. CCC-TED-79-TR-046

(3) Continuity checks were utilized to verify jack panel installations in the black dc patch bay, the audio patch bay, and all inactive low level cable pairs between the black IDF and the shield point isolators. All active high level circuits (37 plus 4 spares) were tested and verified as operational from Primary Technical Control at the time each circuit was cutover to low level operation.

b. Exceptions noted during acceptance testing are as follows:

(1) Circuit (Lite 218) in the DSSCS (Y-Community) secure patch bay has a faulty line patch jack, which will require replacement. The circuit through this patch panel is operational with exception of the MTC test generator function. The TOAD will provide a replacement jack for installation by site personnel.

(2) DSSCS circuit (Lite 200) in the Red Switcher has a broken pin at the crossbar switch in auto group two. This circuit has been made operational by soldering associated wire to shaft of broken pin which is not considered as a permanent repair. The Site Engineer has determined that the crossbar switch assembly must be replaced.

c. A daily log of significant events, as required by the EIP, was maintained throughout the installation. Copies of these logs are forwarded as Inclosure 3.

d. Relocation/installation on Modem rack 8214 and installation of the CAU modification, as implemented by EMR-154, clears the exceptions listed on the Croughton ASC 200 Line Expansion Technical Acceptance Recommendation, dated 7 August 1978.

6. CONCLUSION.

a. All equipment and installation provisions of EIP H85050 have been successfully installed, inspected and tested, and are technically acceptable for all operational requirements with noted exceptions as indicated in paragraph 5b. The circuits associated with these exceptions are operational on a temporary basis until permanent repairs can be accomplished. A copy of the signed "Technical Acceptance Recommendation" is at Inclosure 4.

b. Reference 1d indicates that site personnel have cleared the exception reflected at paragraph 5b(1) by installing a new patch jack provided by TOAD.

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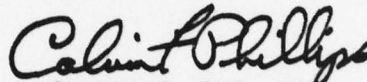
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c. TOAD has agreed to provide and install a new crossbar switch
assembly in the Red Switcher cabinet at a later date as required by the
exception reflected at paragraph 5b(2).

7. RECOMMENDATIONS. None.

FOR THE COMMANDER:



CALVIN F. PHILLIPS
Colonel, Signal Corps
Director, Test & Evaluation
Directorate

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as

CF:

COMMANDERS

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2130th Communications Group, ATTN: OIC ASC, APO New York 09378
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DIRECTORS

Defense Communications Agency, ATTN: Code 531, Washington, DC 20305

Defense Documentaton Center for Scientific and Technical Information,
ATTN: Documentation Service Center, Alexandria, VA 22314

Defense Communications Agency, Technical Library Center, Code 205,
Washington, DC 20305

E

QUALITY ASSURANCE INSPECTION CHECKLIST - INSTALLATION (CCCR 702-2)		PAGE 1 OF 11 PAGES		
		DATE (day, mo, year) 3 April 1979		
SITE Croughton ASC	LOCATION England	TEST ENGINEER QUALITY ASSURANCE REPRESENTATIVE (QAR) Wood		
PROJECT NAME Low Level Conversion		TASK NO. EIP No. H85050		
REFERENCED T.O. FOR QUALITY OBSERVATIONS FOLLOW MAIN PARAGRAPHS				
A. <u>Drawings and Specifications</u> (AFTO 31-10-3, 31-10-9, 31-10-27, 31-10-29)		YES	NO	NA
1. Are floor plan drawings available?		X		
2. Are equipment location drawings available?		X		
3. Are face layout drawings of equipment in bays available?		X		
4. Are drawings for distribution frame block assignments available?		X		
5. Are pin connections on terminal blocks shown on drawings?		X		
6. Is stenciling of terminal blocks shown on drawings?		X		
7. Are drawings of power distribution equipment available?		X		
8. Are wire sizes indicated on drawings?		X		
9. Are schematic diagrams of circuit types to be installed included in drawings?		X		
10. Are drawings of site grounding systems available?		X		
11. Are drawings showing arrangement of cable racks, ducts, and trenches available?		X		
12. Do specifications contain list of reference material required by installers?		X		
13. Do specifications contain cable running list for power distribution?		X		
14. Do specifications contain cable running list for signal cabling?		X		

QUALITY ASSURANCE INSPECTION
CHECKLIST - INSTALLATION (CCCR 702-2)

PAGE 2 OF 11 PAGES

	YES	NO	NA
15. Do specifications contain cable running list for RF cabling?			X
16. Do specifications contain detailed information on grounding?	X		
17. Do specifications contain details on all special instructions for installers?	X		
18. Do drawings reference all applicable items on BOM?	X		
B. <u>Tools and Equipment</u> (AFTO 31-10-29)			
1. Is equipment damaged or unserviceable?		X	
2. Are all installation materials on hand and serviceable?	X		
3. Are all tools necessary for completion of the job on hand?	X		
4. Is all test equipment needed for test and checkout of installation available?	X		
C. <u>General Safety Practice</u> (AFTO 31-10-29)			
1. Are goggles being worn when drilling and grinding?	X		
2. Are sharp edges left on frame or duct work?		X	
3. Are all hand tools properly used?	X		
4. Are electric power tools properly grounded?	X		
D. <u>Floor Plan Layout</u> (AFTO 31-10-9, 31-10-29)			
1. Are equipment layout plans in accordance with drawings?	X		
2. Was layout plan completed before equipment was moved into area?	X		
E. <u>Erecting and Mounting</u> (AFTO 31-10-29)			
1. Is equipment laid out in accordance with floor plan drawing?	X		

QUALITY ASSURANCE INSPECTION
CHECKLIST - INSTALLATION (CCCR 702-2)

PAGE 3 OF 11 PAGES

	YES	NO	NA
2. Are equipment bays level and plumbed within tolerances?	X		
3. Has proper spacing been provided between equipment racks?	X		
4. Are base angles of frames secured to floor in proper location?	X		
5. Are all cabinets flush mounted and plumbed?	X		
6. Has finish of equipment, cabinets, and racks been touched up?	X		
7. Are bolts and screws free from stripped threads and defaced heads?	X		
8. Have sufficient clearances been provided between apparatus for heat dissipation?	X		
9. Are terminal blocks aligned on distribution frames?	X		
10. Has equipment been installed in cabinets or racks in accordance with face layouts?	X		
11. Are all nuts and bolts securely tightened?	X		
12. Are exposed or cut ends of metal filed smooth and painted?	X		
13. Have lock and flat washers been used?	X		
14. Is the C-E equipment BOM available at the facility?	X		
15. Has the C-E equipment been inventoried and discrepancies posted?	X		
16. Is all required C-E equipment at the site?	X		
17. Is all C-E equipment installed?	X		
F. <u>Cable Racks</u> (AFTO 31-10-6)			
1. Location of cable racks:			
a. Are cable racks located in accordance with cable plan drawing?			X

QUALITY ASSURANCE INSPECTION
CHECKLIST - INSTALLATION (CCCR 702-2)

PAGE 4 OF 11 PAGES

	YES	NO	NA
b. Does height of cable racks conform to height above floor as indicated on cable plan drawing?			X
c. Are cable racks located so that clearance is provided for installation and maintenance of ultimate equipment?			X
d. Are cable racks located so cables are not subject to damage or exposure or other detrimental conditions?			X
2. Assembly of cable racks:			
a. Are long sections of cable racks used where possible?			X
b. Have clamping details been altered other than where necessary to avoid interference?			X
c. Are open ends of cable racks properly closed?			X
d. Are vertical cable racks properly terminated on floors?			X
3. Support of cable racks:			
a. Are cable racks properly supported and fastened?			X
b. Are cable racks installed so that no excessive load or binding is imposed on the equipment?			X
c. Are horizontal cable racks supported on approximately 5 feet centers but not to exceed 6 feet?			X
d. Has support been provided within 3 feet of free end of cable rack?			X
e. Are cable racks braced where necessary to prevent sway?			X
G. <u>Running Cable</u> (AFTO 31-10-13)			
1. Are cable runs made in accordance with cable running list?	X		
2. Are cables twisted or crossed on cable rack?			X

QUALITY ASSURANCE INSPECTION CHECKLIST - INSTALLATION
(CCCR 702-2)

PAGE 5 OF 11 PAGES

	YES	NO	NA
3. Do cables at turns or bends conform to the bending radii and position?	X		
4. Is protection provided where cable sheaths contact rough or sharp edges or metal?	X		
5. Are cables which are turned off over side of cable racks formed with minimum allowable radii?			X
6. Are cables turned off rack horizontally and then up?			X
7. Do cables to the distribution frame enter on the vertical side?	X		
8. Are cables serving the horizontal side of a distribution frame secured to the transverse arms near the vertical upright?	X		
9. Are cable tags properly prepared and in accordance with the cable running list?	X		
10. Are cable tags secured at each end of cable run?	X		
11. Have cable tags been removed upon completion of verification and termination?	X		
12. Are cable butts located as near as practicable to the point where the first wires turn out?	X		
13. Are cable butts properly treated?	X		
14. Is insulation of wires undamaged at butt location?	X		
15. Are unused and spare wires protected at butt location?	X		
H. <u>Securing Cable</u> (AFTO 31-10-2, 31-10-13)			
1. Is starting stitch properly made and placed?	X		
2. Is required Kansas City stitch properly made?	X		
3. Are first and succeeding layers of cable properly secured?	X		

QUALITY ASSURANCE INSPECTION
CHECKLIST - INSTALLATION (CCCR 702-2)

PAGE 6 OF 11 PAGES

	YES	NO	NA
4. Are cables secured at every cable rack cross strap?			X
5. When cable butt is between securing devices, are cables secured together with an appropriate stitch?			X
6. Are lock stitches properly made and spaced?			X
7. Are splices in twine properly made?			X
I. <u>Sewed Forms</u> (AFTO 31-10-13)			
1. Is proper size twine used for the diameter of the form?			X
2. Are proper number of stands used?			X
3. Are stitches properly spaced?			X
J. <u>Butting and Stripping</u> (AFTO 31-10-13)			
1. Are proper tools used for butting and stripping of cable?	X		
2. Are cable butts properly dressed?	X		
3. Is proper distance maintained from cable butt to fanning strip?	X		
K. <u>Fanned Forms</u> (AFTO 31-10-2)			
1. Are cables fanned and connected to the left side of vertical mounted terminal blocks and to the bottom of horizontal terminal blocks?	X		
2. Are conductors in fanned forms twisted and bunched?	X		
3. Are fanned forms straight and taut from butt location to fanning strip?	X		
4. Is length of skimmers correct?	X		
5. Has color code been properly followed?	X		
6. Are spare wires disposed of properly?	X		
L. <u>Stenciling</u> (AFTO 31-10-27, 31-10-29)			
1. Is equipment correctly identified and stenciled in accordance with floor plan drawings?	X		

QUALITY ASSURANCE INSPECTION
CHECKLIST - INSTALLATION (CCCR 702-2)

PAGE 7 OF 11 PAGES

	YES	NO	NA
2. Are designations located correctly?	X		
3. Are correct size designations used on particular types of apparatus or equipment?	X		
M. <u>Strapping</u> (AFTO 31-10-16)			
1. Are straps properly placed?	X		
2. Is correct type of strap wire used?	X		
3. Does insulation extend to terminal?	X		
4. Are straps placed so as not to interfere with operation of apparatus?	X		
5. Is removal of apparatus blocked?	X		
6. Are designations of apparatus obscured?	X		
N. <u>Connecting and Soldering</u> (AFTO 31-10-7)			
1. Is soldering clamp used when connecting wires?	X		
2. Are connections made on terminal blocks in proper manner?	X		
3. Is all soldering done with standard rosin core solder?	X		
4. Are connections secure and free of foreign substances?	X		
5. Has all unsightly flux and excess globules of solder been removed?	X		
6. Is insulation on skimmers burnt or otherwise damaged?		X	
7. Do skimmers on connected terminals exceed 1/16 in?		X	
8. Are all conductors given a continuity test after connection is made?	X		
O. <u>Wrapped Connections</u> (AFTO 31-10-7)			
1. Are wrapped connections applied only on suitable terminals?			X
2. Are connections essentially straight and free of angular bends or crimps?			X

QUALITY ASSURANCE INSPECTION
CHECKLIST - INSTALLATION (CCCR 702-2)

PAGE 8 OF 11 PAGES

	YES	NO	NA
3. Are the required number of turns in contact with the terminal in accordance with criteria for gauge of wire used?			X
4. Are wrapped connectors soldered where applicable?			X
P. <u>Cross Connections</u> (AFTO 31-10-11)			
1. Are jumpers properly routed at distribution frame?	X		
2. Do jumpers have sufficient slack after connection?	X		
3. Are conductors twisted between fanning strip and terminal?	X		
4. Does twist remain in conductors beyond rear of fanning strip?	X		
5. Are jumpers properly dressed?	X		
6. Has excess solder been removed from terminals?	X		
Q. <u>Equipment and Signal Grounds</u> (AFTO 31-10-24, 31-10-29)			
Are equipment and signal grounds installed in accordance with applicable codes and standards and in accordance with installation drawings?	X		
R. <u>Conduit</u> (AFTO 31-10-12)			
1. Are burrs removed from conduit after cutting?	X		
2. Is bending radii of conduit adequate?	X		
3. Are there more than four 90-degree bends in a single conduit run?		X	
4. Does number of conductors in conduit conform?	X		
5. Are conduits supported at intervals not exceeding 6 feet?	X		
6. Have all fittings been tightened after installation?	X		

	YES	NO	NA
S. <u>Ducts (RF Shieldings)</u> (AFTO 31-10-12, 31-10-13)			X
1. Are hangers for overhead ducts mounted first?			X
2. Is proper type mallet used in assembly?			X
3. Are flange sections cleaned before installation?			X
T. <u>Coaxial Cables</u> (AFTO 31-10-14)			X
1. Is cable inspected for possible damage prior to installation?			X
2. Where required, is cable sewed in same manner as signal cable?			X
3. Is butting and stripping done in same manner as signal cable?			X
4. Do cable tags remain on coaxial cable from antenna to RF patch or equipment?			X
5. Is support spacing of cables installed as prescribed (3 ft for cable 1-5/8 in or smaller and 5 ft for cables 1-11/16 in or greater)?			X
6. Does bending radii of cables meet prescribed standards of the T.O.?			X
U. <u>Waveguides and Antennas</u> (AFTO 31R-10-5, CEEIA PAM 105-3)			X
1. Are waveguides stored in a horizontal manner and away from heavy objects?			X
2. Are waveguides inspected for possible damage prior to installation?			X
3. Are waveguides cleaned in the proper manner prior to installation?			X
4. Are hangers installed every 5 feet as prescribed?			X
5. Do waveguide bends conform to T.O. criteria?			X
6. Are antennas and reflectors mounted as prescribed heights?			X
7. Are antennas oriented to the prescribed azimuth?			X

QUALITY ASSURANCE INSPECTION
CHECKLIST - INSTALLATION (CCCR 702-2)

PAGE 10 OF 11 PAGES

	YES	NO	NA
V. <u>Outside Plant Inspection</u> (AFTO 31R-10-5, 31-10-5, 31-10-3, 31-10-10, 31-10-21, 31-10-24, 31-10-28)			
1. Are antenna tower locations proper?			X
2. Are footings or pads prepared prior to concrete pour?			X
3. Have concrete pours for footings and pads been accomplished in accordance with specified criteria?			X
4. Has proper cure time been achieved prior to mounting steel?			X
5. Is the tower constructed in accordance with the specified criteria, drawings, etc?			X
6. Are the antenna supports, anchors, pedestals, etc., properly installed in accordance with established criteria?			X
7. Are supporting structures, guy wires, tower lighting kits (when required), termination boxes, and baluns included and properly installed in accordance with established criteria?			X
8. Are antennas properly mounted and aligned?			X
9. Were antenna reflectors properly aligned prior to mounting the feed horn?			X
10. Are antenna curtains for rhombic and log periodics properly installed?			X
11. Are transmission lines, coaxial cables, waveguides, etc., properly installed?			X
12. Has tower and supporting structure been painted in accordance with established criteria?			X
13. Are waveguides, cable runs, etc., properly installed and protected?			X
W. <u>Power Buildings</u> (AFTO 31-10-3, 31-10-29)			
1. Are power buildings and pads properly located and installed?			X

QUALITY ASSURANCE INSPECTION
CHECKLIST - INSTALLATION (CCCR 702-2)

PAGE 11 OF 11 PAGES

	YES	NO	NA
2. Are generators and power distribution panels properly located and installed?			X
3. Are oil pans properly installed?			X
4. Are generators properly vented from the buildings?			X
5. Has all required wiring been installed?			X
6. Are fuel tanks installed above ground; if so, are they located at the proper distance from generator building?			X
7. If fuel tanks were installed underground, was it accomplished in accordance with established procedures?			X
8. Is safety equipment located in generator building?			X
X. <u>Installation Drawings</u> (AFTO 31-10-29)			
Have drawings been reviewed to assure "as built" accuracy?	X		

CERTIFICATION OF TEST

MODEM RACK 8214 INSTALLATION

This is to certify that appropriate tests were performed to demonstrate that Modem Rack 8214 and equipment have been correctly installed and are functioning properly as identified below.

MODEM

8214-A1

8214-A2

8214-A3

8214-A4

8214-A5

8214-A6

Site Maintenance Representative R. L. Hogue Date 2 APR 79

Site Patch/Test Representative James Ryan Date 2 APR 79

CEEIA Site Engineer John S. Best Date 2 APR 79

CEEIA QA/Test Representative Billy Wood Date 2 APR 79

CERTIFICATION OF TEST

DSSCS EXPANSION

This is to certify that appropriate tests were performed to demonstrate that EMR 097 LTB modifications and the DSSCS expansion circuits have been correctly installed and are functioning properly in equipment identified below.

<u>LITE</u>	<u>LTB</u>	<u>CRYPTO</u>	
*200	0203-A01	3113-A1	
201	0203-A02	3113-A2	
202	0203-A08	3114-A1	
203	0203-A10	3114-A2	
204	0203-A13	3115-A1	
205	0203-B01	3115-A2	
206	0203-B08	3116-A1	
207	0203-B09	3116-A2	
208	0206-B14	3117-A1	
209	0207-B10	3117-A2	
210	0207-B13	3118-A1	
211	0207-B14	3118-A2	
212	0208-A03	3119-A1	
213	0208-A04	3119-A2	
214	0208-A07	3120-A1	
215	0208-A08	3120-A2	
216	0208-A11	3121-A1	
217	0208-A12	3121-A2	
*218	0204-B12	4115	
219	0202-A14	4114	
220	0205-A06	4113	
221	0204-B14	4112	
222	0205-B06	4111	
223	0205-B08	4110	* Exception

Site Maintenance Representative R. L. Long Date 2 APR 79

Site Patch/Test Representative J. H. G. G. G. Date 2 APR 79

CEEIA Site Engineer John S. Best Date 2 APR 79

CEEIA QA/Test Representative John E. Wood Date 2 APR 79

CERTIFICATION OF TEST

EMR-154 (REVISED) CAU ASYNCHRONOUS MODIFICATION

This is to certify that appropriate tests were performed to demonstrate that the EMR-154 CAU Asynchronous Modifications have been correctly installed and are functioning properly in equipment identified below.

<u>LTB</u>	<u>CAU</u>
0202-A05	3156-A1
0202-A11	3156-A2
0202-A12	3157-A1
0202-B13	3155-A1
0203-B13	3159-A1
0204-A11	3155-A2
0205-B03	3154-A2
0205-B05	3158-A1
0206-A14	3154-A1
0207-B05	3158-A2
0207-B07	3159-A2
	*3153-A1
	*3153-A2

* Spare Position

Site Maintenance Representative Richard Longenecker Date 12 MAR 79

Site Patch/Test Representative John S. Best Date 12 MAR 79

CEEIA Site Engineer John S. Best Date 12 MAR 79

CEEIA QA/Test Representative Billy D. Wood Date 12 MAR 79

PROJECT LOG		CEEIA REPRESENTATIVE Wood	SHEET NO. 01
			DATE Jan 79
PROJECT Low Level Conversion EIP H85050		FACILITY/LOCATION Croughton ASC	
DAY/TIME	SINE	SIGNIFICANT EVENTS	
26/1300	W	Unpack, inspect and inventory of BOM Started.	
29/1600	W	Unpack, inspect and inventory of BCM Completed. Moving equipment and materials started.	
30/1100	W	All equipment and materials staged in ASC.	
30/1300	W	Inbriefing with site personnel	
31/0800	W	The CAU modification (EMR-154 revised) started. Toad personnel modifying the CAU's and site maintenance personnel modifying the LTB's.	
31/0800	W	Teletype monitor 6601 relocation started. This unit must unit must be moved for floor position AH/AJ 41 to floor position AL/AM 41 to allow for the relocation of Black Patch cabinets 7001 and 7002.	

PROJECT LOG		CEEIA REPRESENTATIVE	SHEET NO. 02
		Wood	DATE Feb 79
PROJECT Low Level Conversion EIP H85050		FACILITY/LOCATION Croughton ASC	
DAY/TIME	SINE	SIGNIFICANT EVENTS	
01/1000	W	New tie cable installation between the Red IDF Cabinet 7601 and DSSCS IDF Cabinet 7650 Started. Two each 12 pair cables to be installed.	
01/0800	W	New 7001 Black Patch Bay duct and cabinet installation started and floor position AG 41.	
01/1600	W	The CAU asynchronour modification (EMR-154 revised) has been completed. Test and verification in progress. This modification has been installed in the CAU's mounted in Crypto racks 3153 thru 3159 and includes the additional installation instructions as reflected in CCC-CED-SWR msg 122314Z Jan 79, subj: EMR154 async operation of KG-13.	
02/0915	W	New tie cable installation completed in the RED IDF cabinet 7601. DSSCS IDF cabinet 7650 tie cable installation in progress.	
02/1600	W	New 7001 Black Patch Bay duct and cabinet installation at floor position AG 41 completed.	
02/1215	W	Status report No 1 Transmitted.	
03/0800	W	Moving of signal cables from old 7001 black patch bay to the new 7001 black patch bay started.	
03/1045	W	New tie cable installation completed in the DSSCS IDF cabinet 7650. This completes the new tie cable installation.	
03/1100	W	New jack panel and terminal block installation started in the DSSCS Secure Patch Bay 7150.	
03/1145	W	New jack panel and terminal block installation in the DSSCS Secure Patch Bay 7150 completed.	
03/1145	W	New DSSCS IDF cable installation between DSSCS IDF cabinet 7650 and the DSSCS Secure Patch Bay 7150 is in progress at the 7650 cabinet.	
04/1400	W	All signal cables have been moved from the old 7001 Black Patch Bay to the new 7001 Black Patch Bay and all circuits are operational.	
05/0800	W	Cable positioning and lacing started in the new 7001 Black Patch Bay	
05/0800	W	Removal of old 7001 Black Patch Bay started. This cabinet will be installed as the new 7002 Black Patch Bay.	

PROJECT LOG		CEEIA REPRESENTATIVE Wood	SHEET NO. 03 DATE Feb 79
PROJECT Low Level Conversion EIP H85050		FACILITY/LOCATION Croughton ASC	
DAY/TIME	SINE	SIGNIFICANT EVENTS	
05/1045	W	Removal of the old 7001 Black Patch Bay has been completed. The new 7002 Black Patch Bay duct and cabinet installation has started.	
06/1400	W	The new 7002 Black Patch Bay duct and cabinet installation has been completed. Signal cable move from old 7002 to the new 7002 is pending.	
06/1430	W	The new jack strip cable installation (connect & solder) has started in the DSSCS Secure Patch Bay 7150.	
07/1000	W	Test and verification has been completed on all asynchronous modified CAU positions. This completes the CAU modification required by EMR-154 Revised to include the revision reflected in CCC-CED-SWR message 122314Z Jan 79.	
08/1100	W	Cable removal between the High Level IDF 8801 and the High Level Patch Bay 6901 has started. Only selected cables can be removed at this time.	
09/1000	W	Selected cable removal between the High Level Patch Bay 6901 and the Black IDF has started.	
12/1300	W	Start running cables in duct between the SPI and the Black IDF.	
12/1615	W	Completed the cable run between the SPI and the Black IDF. Ten 12 pair and one 6 pair cables were run.	
13/1030	W	The new cable installation between the DSSCS IDF 7650 and the DSSCS Secure Patch Bay 7150 has been completed in the 7650 cabinet.	
13/1300	W	Low level conversion cable terminations have started in the Black IDF 7703 cabinet.	
14/1000	W	Two additional tie cables are required between the Red IDF 7601 cabinet and the DSSCS IDF 7650 Cabinet. This cable installation has started.	
14/1230	W	The new jack strip cable installation (connect & solder) in the DSSCS Secure Patch Bay 7150 has been completed. This completes the new circuit requirements in this cabinet.	
14/1630	W	The additional tie cable installation between the Red 7601 cabinet and the DSSCS IDF 7650 cabinet has been completed.	

PROJECT LOG		CEEIA REPRESENTATIVE	SHEET NO. 04
		Wood	DATE Feb 79
PROJECT		FACILITY/LOCATION	
Low Level Conversion EIP H85050		Croughton ASC	
DAY/TIME	SINE	SIGNIFICANT EVENTS	
15/0800	W	LTB and Crypto equipment cables must be moved from their present Red IDF locations to new designated locations on the DSSCS IDF 7650 cabinet. Relocation of the LTB cables has started.	
16/1100	W	Low Level cable terminations have been completed at the Black IDF 7703 cabinet. Terminations have started at the Black IDF 7704 cabinet.	
16/1230	W	LTB cables have been removed from the RED IDF and run to the DSSCS IDF. Crypto cable removal has started at the Red IDF.	
16/1315	W	Statut report no 3 transmitted. Infromal information from NCA Griffiss indicates the Primary Tech Control will be able to start the low level cut over o/a 1 Mar 79.	
16/1615	W	Crypto cables have been removed form the Red IDF and run to the DSSCS IDF. Some cables will not reach and must be replaced.	
17/0800	W	Nine 12 pair cables must be run between the DSSCS IDF 7650 cabinet and appropriate crypto equipment to replace the "short" cables as indicated above. New cable runs have started.	
17/1030	W	Cable preparation has started at the Shield Point Isolator 9102 cabinet.	
17/1400	W	The new cable runs between the DSSCS IDF and Crypto have been completed.	
17/1415	W	Cable terminations have started at the DSSCS IDF 7650 cabinet.	
17/1600	W	Cable preparation has been completed at the Shield Point Isolator 9102 cabinet.	
17/1630	W	Cable lacing at the Black IDF 7110 cabinet has been completed.	
19/0800	W	Termination of new cables has started in crypto.	
19/0815	W	Low level cable terminations have started at the Shield Point Isolator 9104 cabinet.	
20/1200	W	Termination of new cables has been completed at the crypto equipment mounted in racks 3113 through 3121.	

PROJECT LOG		CEEIA REPRESENTATIVE Wood	SHEET NO. 05
			DATE Feb 79
PROJECT Low Level Conversion EIP H85050		FACILITY/LOCATION Croughton ASC	
DAY/TIME	SINE	SIGNIFICANT EVENTS	
20/1700	W	Nine EMR-154 modified LTB's for the CAU asynchronous operation have been tested with the modified CAU's and associated crypto equipment. These positions have been turned over to the site for additional Q/C verification by site Patch and Test personnel.	
21/0800	W	Signal cable move for the old 7002 Black Patch Bay to the new (relocated) 7002 Black Patch Bay has started.	
22/1230	W	Cable terminations for the low level cutover have been completed at the Shield Point Isolator 9104 cabinet. Cable terminations have started at the Shield Point Isolator 9102 cabinet.	
23/1500	W	Status Report No 4 has been transmitted.	
26/0900	W	Thirty day Q/C inspection was performed by site Q/A personnel. No problems identified.	
26/1600	W	All crypto signal cable terminations have been completed at the DSSCS IDF 7650 cabinet. Cables to provide 6 volts to the new line jack strips mounted in the DSSCS Secure Patch Bay were also connected.	
26/1615	W	All existing signal cables have been moved for the old to new (relocated) 7002 Black Patch Bay.	
27/0800	W	Additional circuit capabilities have been provided by adding a black patch panel and a sensor panel to the 7002 cabinet. Cables for these panels have been run between Black IDF 7702 cabinet and the Black Patch Bay 7002. Cable installation has started at the 7002 cabinet.	
27/1115	W	Cable terminations for the low level cutover have been completed at the Shield Point Isolator 9102 Cabinet. As of this date, The Croughton ASC low level installation is ready for cutover.	
27/1230	W	The 9 disconnected cables between crypto and the Red IDF have been removed from the duct. These are the cables that would not reach from the Red IDF to the DSSCS IDF and had to be replaced.	

PROJECT LOG		CEEIA REPRESENTATIVE Wood	SHEET NO. 06 DATE Feb 79
PROJECT Low Level Conversion EIP H85050		FACILITY/LOCATION Croughton ASC	
DAY/TIME	SINE	SIGNIFICANT EVENTS	
27/1400	W	The two remaining EMR-154 modified LTB's have been tested with associated crypto equipment and turned over to site Patch and Test personnel for site Q/C verification.	
28/1030	W	An additional audio patch panel has been mounted on the Audio Patch Bay 6801 at jack set position A8.	
28/1230	W	EMR-97 modified LTB's and new DSSCS jack panel debug has started.	

PROJECT LOG		CEEIA REPRESENTATIVE Wood	SHEET NO. 07 DATE Mar 79
PROJECT Low Level Conversion EIP H85050		FACILITY/LOCATION Croughton ASC	
DAY/TIME	SINE	SIGNIFICANT EVENTS	
01/1330	W	Eight 12 pair cables for the new patch panel have been run between the Audio Patch Bay 6801 and the Audio IDF 8701 cabinet. Cable terminations have started at both cabinets.	
01/1415	W	Cable terminations have been completed at the new black patch panel added to the 7002 cabinet. Sensor panel cable terminations are in progress.	
01/1700	W	Debug has been completed on the 24 EMR-97 modified LTB's and the new DSSCS jack panels.	
02/1115	W	Cable terminations have been completed at the sensor panel added to the 7002 cabinet. All cables dressed and laced. This completes the move and installation of the Black Patch Bay cabinets 7001 and 7002.	
02/1400	W	Cable terminations for the new Black Patch Bay 7002 patch and sensor panels have started at the Black IDF 7702 cabinet.	
02/1700	W	Status Report No 5 has been transmitted. Low level conversion at the Croughton ASC was ready for cutover on 27 Feb 79. Cutover at black IDF cabinets 7303-A5-A6 and 7304-A1-A2, removal of cabinets 8801-8901-8601-6901 and move, run cable and install modem rack 8214 must be accomplished after low level conversion with Primary Tech Control. Sensor jack cable terminations at the 7002 cabinet, thirty 12 pair cable terminations at the 7702 cabinet, eight 12 pair cable terminations at cabinets 6801-8701 and two 12 pair cable terminations at cabinets 6301-7650 is the only installation work pending that can be accomplished prior to the low level cutover. Two circuits utilizing EMR-154 modified asynchronous cau positions were activated in Feb 79. No equipment problems have been encountered and indications reflect a very reliable operation.	
03/1200	W	Cable terminations for the new audio patch panel have been completed at the Audio IDF 8701 cabinet.	
05/0900	W	Cable terminations have been completed at the Audio Patch Bay 6801 cabinet. This completes the installation of the new audio patch panel.	

PROJECT LOG		CEEIA REPRESENTATIVE	SHEET NO. 08
		Wood	DATE Mar 79
PROJECT		FACILITY/LOCATION	
Low Level Conversion EIP H85050		Croughton ASC	
DAY/TIME	SINE	SIGNIFICANT EVENTS	
05/1300	W	A meeting was held with the NCA Site Engineer and the NCOIC of PTC to discuss the low level cutover between PTC and the ASC. They indicated that PTC should be ready for low level cutover on 12 Mar 79. Some rewiring which creates an additional work load at the PTC must be accomplished prior to cutover. They are not happy about the extra work and indicated very little concern about our schedule for cutover or possible workstoppage.	
07/0930	W	Site QC verification has been completed on all 11 EMR-154 CAU asynchronous modified positions by Patch and Test personnel.	
08/1300	W	Four additional 12 pair cables have been run between the Red Switcher 6301 cabinet and the DSSCS IDF 7650 cabinet. This makes a total of six 12 pair cables run between the DSSCS IDF and the Red Switcher which provides switch/select for the additional DSSCS circuits. Cable preparation is in progress at both cabinets but terminations will not be made until debug thru crypto has been completed.	
09/1100	W	Cable terminations for the sensor panel added to the Black Patch Bay have been completed at the Black IDF 7702 cabinet.	
09/1330	W	Status report no 6 has been transmitted. Advised of meeting held on 5 Mar.	
10/0830	W	Cable terminations have started at both the Red Switcher 6301 and the DSSCS IDF 7650 cabinets.	
10/0800	W	Late entry. All 24 EMR-097 modified LTB'S for DSSCS have been tested with associated crypto equipment through the new DSSCS Secure Patch Panel installation. Final test and site QC will be accomplished when Red Switcher cables have been terminated.	
12/0900	W	Low Level cutover between the PTC and ASC has started.	
12/1400	W	Cable terminations for the Red Switcher have been completed at the DSSCS IDF 7650 cabinet.	
13/1000	W	Problem encountered with DSSCS cable terminations in the Red Switcher. Wires removed from circuits 174 thru 197 for DSSCS terminations, DSSCS circuits on 200 thru 223.	

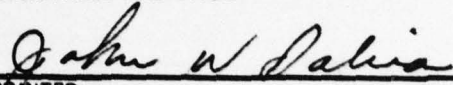
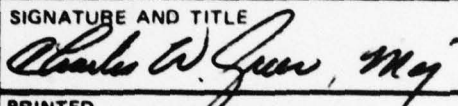
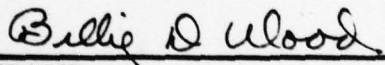
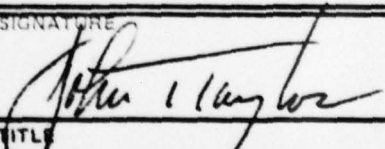
PROJECT LOG		CEEIA REPRESENTATIVE	SHEET NO.09
		Wood	DATE Mar 79
PROJECT		FACILITY/LOCATION	
Low Level Conversion EIP H85050		Croughton ASC	
DAY/TIME	SINE	SIGNIFICANT EVENTS	
14/1345	w	All active high level circuits (37 operational - 4 spare) have been cutover to low level operation and tested with the exception of four circuits on the SP-416 Modem presently installed in the ASC. These circuits will be cutover to low level when the SP-416 installation at primary tech control has been completed. All remaining inactive high level cable pairs will be removed at the shield point isolators and verified inhouse. Cutover and test with primary tech control will be accomplished by Patch and Test personnel at their convenience.	
14/1630	W	Red Switcher circuit terminations for DSSCS were started at the wrong location which deleted circuits 174 thru 197. DSSCS circuits are 200 thru 223. Circuits 174 thru 197 have been restored at the Red IDF and the Red Switcher. Since cables for these circuits were cut, cables run for DSSCS were utilized for restoral and new cables run for the DSSCS circuits.	
15/1030	W	Six 12 pair cables have been run between the DSSCS IDF and the Red Switcher to replace cables used to restore circuits 174 thru 197. Cable terminations for DSSCS expansion are in progress at both the DSSCS IDF and the Red Switcher for circuits 200 thru 223.	
15/1130	W	Cabling for the new Black patch/sensor panels and the Audio panel have been buzzed to appropriate IDF.	
15/1200	W	Preliminary work has started for Modem Rack 8214 relocation.	
17/0800	W	Cable runs between Modem rack 8214 and the black/audio IDF cabinets have started.	
17/0930	W	Cable runs between Modem rack 8214 and the black/audio IDF cabinets have been completed.	
19/1200	W	Modem rack 8214 AC power run to Power Panel J has started. Original power run for this rack made during the 200 line upgrade was utilized by the site for a CODEX installation.	
19/1500	W	AC power run for Modem rack 8214 has been completed. Terminations will be made when rack is positioned.	
19/1635	W	Status report no 7 has been transmitted.	
20/0930	W	Cable terminations have been completed at the DSSCS IDF 7650 Cabinet. Terminations continue at the Red Switcher.	

PROJECT LOG		CEEIA REPRESENTATIVE	SHEET NO. 10
		Wood	DATE Mar 79
PROJECT		FACILITY/LOCATION	
Low Level Conversion EIP H85050		Croughton ASC	
DAY/TIME	SINE	SIGNIFICANT EVENTS	
20/1000	W	All disconnected cables to the Red IDF have been pulled from the duct. All disconnected cable pairs in active cables have grounded in the Red IDF.	
22/1000	W	Cable terminations for Modem Rack 8214 have been completed at the Black IDF.	
22/1400	W	Cable Terminations for the additional DSSCS circuits have been completed at the Red Switcher. This completes the DSSCS expansion installation. Test and site verification pending.	
26/1030	W	SP 416 Modem cutover and the High Level System removal has started.	
26/1100	W	SP 416 Modem cutover has been completed.	
26/1115	W	Modem rack 8214 installation has started.	
26/1400	W	Cables for High Level System have been disconnected. Cabinet and cable removal has started.	
26/1500	W	Status report no 8 has been transmitted. Reported as of 22 Mar all possible installation requirements of EIP H85050 have been completed pending cutover of four circuits on the SP 416 Modem. Relocation/installation of Modem rack 8214 and High Level System removal can not be accomplished until successful completion of the SP 416 cutover. Informal information from Primary Tech Control indicates that they will be ready for cutover on 26 Mar.	
27/1300	W	Test and site verification of the additional DSSCS circuits (lite) 200 thru 223 has started.	
28/1100	W	Cables for the High Level System have been pulled from duct with exception of 8 cables to the Black IDF 7003 cabinet. These cables have been properly grounded at the 7003 cabinet.	
28/1300	W	Modem rack 8214 installation has been completed. AC power wiring has been terminated at the Modem rack and Power Panel J.	
29/0800	W	Cable terminations have started at the Modem rack and the Audio IDF 8701 cabinet.	
29/1100	W	Cable lacing has been completed in the Shield Point Isolator 9102 and 9104 cabinets.	

PROJECT LOG		SHEET NO 11
		DATE March 1979
PROJECT/CONTRACT NUMBER Low Level Conversion EIP H85050	TIME	LOCATION Croughton ASC
FACILITY Croughton ASC		CEEIA REPRESENTATIVE Wood
DAY/TIME	SINE	SIGNIFICANT EVENTS
29/1415	W	High level cabinet removal has been completed. All holes in wireway caused by duct removal have been covered.
29/1430	W	Cable terminations for Modem Rack 8214 have been completed at the audio IDF.
29/1445	W	Project review meeting was held with site personnel. It is anticipated that the project completion date will be 3 Apr 79.
30/1130	W	Cable terminations for Modem Rack 8214 have been completed at the modems and AC applied.
30/1230	W	Final cleanup (cabinet and wireway) involved with EIP H85050 is in progress.
30/1330	W	Status Report No. 9 has been transmitted.
30/1430	W	<p>Final installation inspection was made with the site QA representative. The following problems identified and will be listed as exceptions.</p> <ol style="list-style-type: none"> 1. Lite 218 in the DSSCS security patch bay has a faulty line patch jack. Circuit operational except for MTC test generator. Site personnel has agreed to install a new patch jack that will be provided by TOAD. 2. Lite 200 in Red Switcher has broken pin. Circuit operational by soldering wire to shaft of broken pin. Not permanent. Site engineer has determined that crossbar switch assembly must be replaced. TOAD will replace this assembly at a later date.

PROJECT LOG		CEEIA REPRESENTATIVE Wood	SHEET NO. 12 DATE Apr 79
PROJECT Low Level Conversion EIP H85050		FACILITY/LOCATION Croughton ASC	
DAY/TIME	SINE	SIGNIFICANT EVENTS	
02/1430	W	Test and site verification of the 24 additional DSSCS circuits has been completed.	
02/1500	W	Test and site verification of the six modems mounted in Rack 8214 has been completed.	
03/1500	W	The Technical Acceptance Recommendation (TAR) was signed by the Commander of the 2130CG. This signifies that all equipment for this program have been successfully installed, inspected, and tested, and are technically acceptable for all operational requirements with exceptions as noted. The technical and facility support provided by all personnel of the 2130th Comm Gp is greatly acknowledged. The performance and professionalism of all ASC personnel together with dedication and cooperation assured successful accomplishment of this installation program.	
04/0930	W	Status Report No. 10 (Final) has been transmitted.	

TECHNICAL ACCEPTANCE RECOMMENDATION (SUMMARY) (CCCR 702-2)		PAGE 1 OF 7 PAGES DATE (DAY, MO, YEAR) 3 April 1979
PROJECT/CONTRACT NUMBER EIP No. H85050	TITLE Low Level Conversion	LOCATION RAF Croughton, England
FACILITY DCS Automated Digital Network (AUTODIN) Switching Center		TEST DIRECTOR Billie D. Wood
OPERATING AGENCY 2130th Communications Group APO NY 09378	ENGINEERING AGENCY U.S. Army Communications-Electronics Engineering Installation Agency CCC-CED-SWR Fort Huachuca, AZ 85613	
INSTALLATION AGENCY Tobyhanna Army Depot SDSTO-MI-M Tobyhanna, PA 18466	TESTING AGENCY U.S. Army Communications-Electronics Engineering Installation Agency CCC-TED-TSDS Fort Huachuca, AZ 85613	
PROJECT DESCRIPTION Black dc patch bays 7001 and 7002 were relocated to position these cabinets in line with existing patching facilities. Twenty four additional DSSCS terminations were provided by adding two line jack panels to the 7150 DSSCS secure patch bay and two IDF panels to the DSSCS IDF 7650 cabinet. EMR 097 LTB modification required for DSSCS operation was applied to designated Line Termination Buffers. All high level circuits were converted to low level and the high level converter system removed. Additional circuit patching capabilities were provided by installing additional patch and sensor panels in the 7002 black dc patch bay and a patch panel in the audio patch bay. Synchronous to asynchronous operating capabilities were provided by applying EMR 154 CAU asynchronous modification to designated Line Termination Buffers and crypto equipment.		
This Technical Acceptance Recommendation is executed by the onsite representatives of the installation, test and operating agencies. It does not constitute official acceptance of the project but does certify that the MAJOR ITEMS INSTALLED AND DOCUMENTATION PROVIDED are as stated herein. This document further certifies that the project has been installed and performs satisfactorily in accordance with the requirements listed under REFERENCES except as noted under EXCEPTIONS and REMARKS. Upon execution of this TECHNICAL ACCEPTANCE RECOMMENDATION, USACEEIA considers this project complete except for such follow-on action as may be necessary to clear the EXCEPTIONS stated herein.		

TECHNICAL ACCEPTANCE RECOMMENDATION (CERTIFICATION) (CCCR 702-2)		PAGE 2 OF 7 PAGES
		DATE (DAY, MO, YEAR) 3 April 1979
PROJECT/CONTRACT NUMBER EIP No. H85050	TITLE Low Level Conversion	LOCATION RAF Croughton, England
<p align="center"><u>CERTIFICATION</u></p> <p>Acceptance tests and Quality Assurance Inspections are complete for equipment installed under this project.</p>		
WITHOUT EXCEPTIONS <input type="checkbox"/> WITH NOTED EXCEPTIONS <input checked="" type="checkbox"/>		
INSTALLATION AGENCY Tobyhanna Army Depot SDSTO-MI-M Tobyhanna, PA 18466	SIGNATURE AND TITLE 	
	PRINTED JOHN W. SABIA Team Chief	
OPERATING AGENCY 2130th Communications Group APO NY 09378	SIGNATURE AND TITLE 	
	PRINTED CHARLES W. GREER, Major, USAF Chief, Maintenance	
TEST AGENCY U.S. Army Communications-Electronics Engineering Installation Agency CCC-TED-TSDS Fort Huachuca, AZ 85613	SIGNATURE AND TITLE 	
	PRINTED BILLIE D. WOOD Quality Assurance Representative	
<p align="center"><u>ACCEPTANCE</u></p> <p>Equipment herein certified successfully installed and tested, is accepted for operation.</p>		
OPERATING COMMAND Commander 2130th Communications Group APO NY 09378	SIGNATURE 	
	TITLE JOHN T. TAYLOR, Colonel, USAF Commander	

9. TECHNICAL ACCEPTANCE RECOMMENDATION (INSTALLED EQUIPMENT) (CCCR 702-2)		PAGE 3 OF 7 PAGES	
		DATE (DAY, MO, YEAR) 3 April 1979	
PROJECT/CONTRACT NUMBER ETP No. H85050	TITLE Low Level Conversion	LOCATION RAF Croughton, England	
MAJOR EQUIPMENT INSTALLED/RELOCATED			
BOM ITEM NO.	DESCRIPTION	PART NUMBER/FSN	QUANTITY
	<u>INSTALLED:</u>		
	Line Jack Panel P/O Patch Bay, Secure Circuits ON-114(V)3/FY	1000003049-00-1	2 each
	Line Jack Panel P/O Patch Bay, Audio AN/FYA-25	D15770	1 each
	Line Jack Panel	D15779	2 each
	Sensor Jack Panel P/O Patch Bay, Low Level Signals AN/FYA-26	D15777	1 each
	CAU Asynchronous Modification Kit P/O Synchronizer, Electrical SN394(G)/G	5895-01-060-4813	13 each
	<u>RELOCATED:</u>		
	Patch Bay, Low Level Signal ON-8/FYA-11	5895-00-832-5114	1 each
	Patch Bay, Low Level Signal AN/FYA-26	5895-00-832-5112	1 each
	Equipment Rack RR-197 (Modem 8214)	5975-00-686-0205	1 each
	<u>REMOVED:</u>		
	Patch Bay, High Level Signals ON-7/FYA-11	5895-00-851-5268	1 each
	Interconnecting Unit, High Level Signals AN/FYA-31	5895-00-087-7098	1 each
	Converter Unit, Signal Level OU-20/FYA-11	5895-00-087-6765	1 each
	Power Supply Set OP-20/FYA-11	5895-00-935-0333	1 each

10. TECHNICAL ACCEPTANCE RECOMMENDATION (DOCUMENTATION) (CCCR 702-2)		PAGE 4 OF 7 PAGES
		DATE (DAY, MO, YEAR) 3 April 1979
PROJECT/CONTRACT NUMBER EIP No. H85050	TITLE Low Level Conversion	LOCATION RAF Croughton, England
PROJECT DOCUMENTATION PROVIDED Drawings		
REFERENCE DOCUMENTATION	TITLE	NO. OF COPIES
UK207SD-CL90002	IDF Cabling Information to DSSCS/DIN Jackset	6
UK207SD-DI90002	Drawing Index	1 of 1
UK207SD-FP90002	Autodin Floor Plan Communications Equipment Area	1 of 1
UK207SD-ID90002	DSSCS/DIN Red Patch Signal Connections Cabinet 7150	1 of 1
UK207SD-IN90001	Autodin Power Duct Layout Communications Equipment Area	1 of 1
UK207SD-IN90002	Modem MD-674 AC and Signal Wiring	1 of 1
UK207SD-IN90004	Low Speed Modem Facility Installation Drawing	1 of 1
UK207SD-IN90005	Equipment Installation Detail Crypto-Modem Equipment Racks	1 of 1
UK207SD-RD90002	AUTODIN Communications Equipment Area Signal Duct Area	1 of 1
UK207SD-RD90005	Signal Level Converter Facility Details For Deinstallation	1 of 1

11. TECHNICAL ACCEPTANCE RECOMMENDATION (EXCEPTIONS) (CCCR 702-2)		PAGE 5 OF 7 PAGES
		DATE (DAY, MO, YEAR) 3 April 1979
PROJECT/CONTRACT NUMBER	TITLE	LOCATION
EIP No. H85050	Low Level Conversion	RAF Croughton, England
EXCEPTIONS		SUGGESTED ACTION AGENCY
ENGINEERING <input type="checkbox"/> INSTALLATION <input type="checkbox"/> OTHER <input checked="" type="checkbox"/>		
<p>1. Circuit (Lite 218) in the DSSCS security patch bay has a faulty line patch jack. The circuit through this patch panel is operational with the exception of the MTC test generator function.</p> <p>2. DSSCS circuit (Lite 200) in the Red Switcher has a broken pin at the crossbar switch in auto group two. This circuit has been made operational by soldering associated wire to broken pin. This is not considered as a permanent repair. Site Engineer has determined that the crossbar switch assembly must be replaced.</p>		<p>TOAD</p> <p>TOAD</p>

12. TECHNICAL ACCEPTANCE RECOMMENDATIONS (REMARKS) (CCCR 702-2)		PAGE 6 OF 7 PAGES
		3 April 1979 DATE (DAY, MO, YEAR)
PROJECT/CONTRACT NUMBER EIP No. H85050	TITLE Low Level Conversion	LOCATION RAF Croughton, England
REMARKS: By USACEEIA:		
1. The Quality Assurance Evaluation Criteria contained in the Engineering		
Installation Plan EIP No. H85050 was utilized as the inspection program for the		
Croughton Automatic Switching Center (ASC) low level conversion program. This		
Technical Acceptance Recommendation signifies that the equipment identified on		
page three (3) have been successfully installed, inspected and tested, and are		
technically acceptable for all operational requirements with noted exceptions.		
a. Continuity checks were utilized to verify jack panel installations in the		
black dc patch bay, the audio patch bay, and all inactive low level cable pairs		
between the black IDF and the shield point isolators.		
b. A copy of all test data generated during the test effort has been turned		
over to site maintenance personnel.		
2. "Red-lined" drawings have been turned over to site maintenance personnel.		
USACEEIA will forward finalized "as-built" drawings when completed.		
3. Relocation/installation of Modem rack 8214 and installation of the CAU		
modification, as implemented by EMR-154, clears the exceptions listed on the		
Croughton ASC 200 Line Expansion Technical Acceptance Recommendation, dated		
7 August 1978.		

[illegible]